

UMA Planetarium Newsletter

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We are used to interacting in various ways in our day to day lives. We interact with our family and friends, co-workers and sometimes clients and business associates depending on our jobs. We do all these things without realizing that as passengers on Spaceship Earth we are doing more interacting than we think.

First of all, photons of light that took nearly 1 million years to get from the center of the Sun to its visible upper layers are constantly reflecting off objects around you and allowing you to see the world; this only after the 8 minute, 150 million kilometer trip from the Sun. The Earth is also bombarded by the solar wind particles from the 1million degree outer layer of the Sun.

We also have billions of neutrinos from the center of the Sun passing through our bodies from the nuclear reactions in the core of the Sun that create its energy. These tiny particles travel right through you, the Earth and out into the Universe all the time.

One interaction that is easier to watch is the annual Perseid meteor shower that will begin tonight, August 11th and peak in the AM hours of August 13th. Here tiny particles ejected from Comet Temple-Tuttle will hit the Earth's atmosphere and create beautiful bright flashes. This year we are lucky to have a new Moon to watch the shower, which sometimes displays 100 meteors per hour. Meteor showers are fun and exciting. Just go out in the AM hours the next few nights and take a star chart to learn some constellations while you are there. Of course to avoid unwelcomed interactions don't forget the bug spray! Don't forget to bring those family and friends either.

Mel Blake.

Image of the Month



This image from the Spitzer Infrared Space telescope shows the star forming region M17 SWex. Infrared light is able to travel through the dark nebula in this region and allows us to peer inside. The new stars formed here blow bubbles in the gas from the pressure from their light. Once one of these is visible in red near the top just right of center. The image also shows the "domino effect" of star formation since the objects at right are older than those at center. The pressure from the light of stars destabilized the gas next to them, causing them to collapse and form new stars. This is a common effect in the galaxy. M17 is about 40 light years across and is about 5000 light years away in the constellation Sagittarius. **Image courtesy NASA and the Spitzer Space Telescope.**

Astro Quote: *"Man must rise above the Earth—to the top of the atmosphere and beyond—for only thus will he fully understand the world in which he lives."*

— Socrates

Calendar for August, 2010

- Aug. 10th. Planetarium Public Night.
- Aug. 12th. Planetarium afternoon program.
- Aug. 12th. Perseid meteor shower.
- Aug. 13th. Perseid peak in AM.
- Aug. 17th. Planetarium Public night.
- Aug. 19th. Planetarium afternoon program.
- Aug. 24th. Planetarium Public night.
- Aug. 26th. Planetarium afternoon program.
- Aug. 31st. Planetarium Public night.

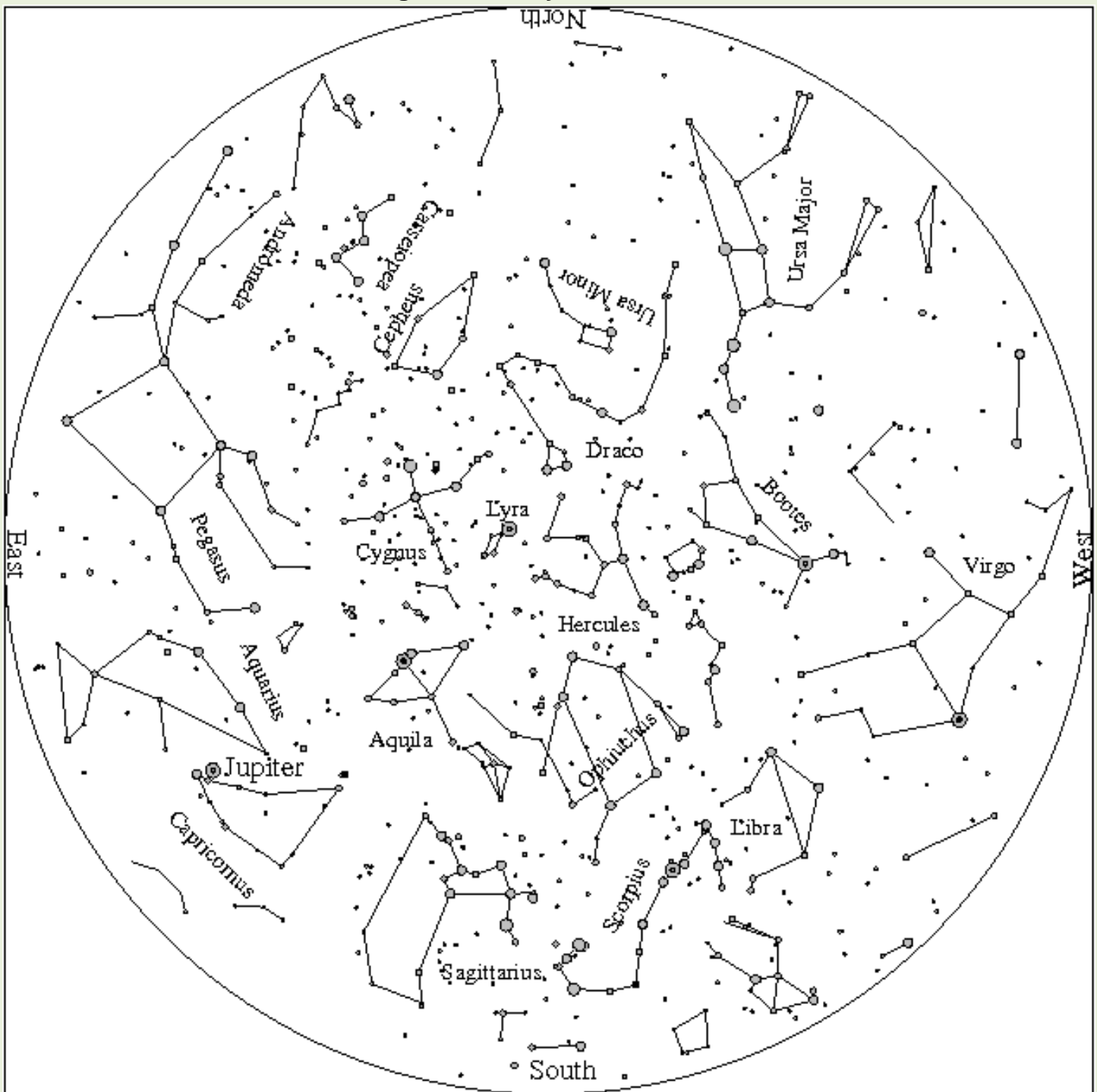
Planetarium tours start at 8:00PM. Tours include a planetarium star show, and either a video presentation or observing through a telescope if weather allows. \$3/person. No reservations are required.

Observing Highlights

Jupiter moves into the evening sky. Watch it in the southern sky in Aquarius.

The Perseid meteor shower is August 11 to 13th. It is one of the best showers of the year.

The August 2010 Sky for North Alabama



How to use this Chart: The sky is shown for 9:00PM, August 15th for Florence, Alabama. It will appear this way one hour earlier for each week difference in time. The stars brightness's are represented by different sized dots. The faintest stars you can see are the small dots; the brightest ones are large dots. Hold the chart with the direction you are facing down. So if you are facing north, hold the chart with north down. The circle represents the horizon and the center of the chart the point directly over your head. So an object half-way between the center and edge of the chart is half-way up in the sky. This chart was prepared using the SkyNow software of R. M. Blake. This chart may be reproduced for non-commercial purposes with the following acknowledgement included: Courtesy UNA Planetarium and Observatory. <http://www.una.edu/planetarium/>.